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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,754	12/08/2003	Masahiko Ibamoto	056208.53058US	9381
23911	7590	05/11/2005	EXAMINER	
CROWELL & MORING LLP INTELLECTUAL PROPERTY GROUP P.O. BOX 14300 WASHINGTON, DC 20044-4300			LE, DAVID D	
			ART UNIT	PAPER NUMBER
			3681	

DATE MAILED: 05/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/728,754

Applicant(s)

IBAMOTO ET AL.

Examiner

David D. Le

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 2,3,9-17,19 and 21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-8,18 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/08/03, 05/14/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This is the first Office action on the merits of Application No. 10/728,754, filed on 08 December 2003. Claims 1-21 are pending.

Documents

2. The following documents have been received and filed as part of the patent application:
 - Information Disclosure Statement, received on 12/08/03
 - Foreign Priority Document, received on 12/08/03
 - Information Disclosure Statement, received on 05/14/04

Election/Restrictions

3. Applicant's election without traverse of Species A, Fig. 2 and claims 1, 4-8, 18 and 20, in the reply filed on 18 April 2005 is acknowledged. Accordingly, claims 2-3, 9-17, 19, and 21 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species.

Specification

4. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should

describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

5. The abstract of the disclosure is objected to because it contains legal phraseology "means" and exceeds 150 words. Correction is required. See MPEP § 608.01(b).

6. The disclosure is objected to because of the following informalities:

- Page 8, line 2 of the present specification, "the engine 11" should be --the engine 1--.

Appropriate correction is required.

Claim Objections

7. Claim 3 is objected to because of the following informalities:

- Line 4, "said fist shaft" should be --said first shaft--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 4-8, 18, and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4:

- Line 2 recites the limitation "each gear ratio". There is insufficient antecedent basis for this limitation in the claim; and
- Line 4 recites the limitation "the gear ratio". There is insufficient antecedent basis for this limitation in the claim.

Claim 5:

- Line 3 recites the limitation "said second transmission gear". There is insufficient antecedent basis for this limitation in the claim;
- Line 5 recites the limitation "said first transmission gear". There is insufficient antecedent basis for this limitation in the claim;
- Lines 7 and 10-12 recite the limitation "said first transmission gear". It is unclear whether this first transmission gear belongs to the first or second transmission gear train;
- Line 14 recites the limitation "said third transmission gear". There is insufficient antecedent basis for this limitation in the claim;

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- Lines 18-19 recite the limitation “the third transmission gear”. It is unclear whether this third transmission gear belongs to the first or second transmission gear train; and
- Lines 21-22 recite the limitation “the second transmission gear”. It is also unclear whether this second transmission gear belongs to the first or the second transmission gear train.

Claim 6:

- Line 3 recites the limitation "said second transmission gear". There is insufficient antecedent basis for this limitation in the claim;
- Line 5 recites the limitation "said first transmission gear". There is insufficient antecedent basis for this limitation in the claim;
- Lines 7-12 recite the limitation “said first transmission gear”. It is unclear whether this first transmission gear belongs to the first or second transmission gear train;
- Lines 14-15 recite the limitation “said third transmission gear”. There is insufficient antecedent basis for these limitations in the claim;
- Lines 19-20 recite the limitations “the third transmission gear” and “said third transmission gear”. It is unclear whether this third transmission gear belongs to the first or second transmission gear train; and

- Lines 22-23 recite the limitation “said second transmission gear”. It is unclear whether this second transmission gear belongs to the first or second transmission gear train.

Claim 7:

- Line 3 recites the limitation "said second transmission gear". There is insufficient antecedent basis for this limitation in the claim;
- Line 5 recites the limitation "said first transmission gear". There is insufficient antecedent basis for this limitation in the claim;
- Lines 7-12 recite the limitation “said first transmission gear”. It is unclear whether this first transmission gear belongs to the first or second transmission gear train;
- Lines 14-15 recite the limitations “the automobile speed” and “the automobile”. There is insufficient antecedent basis for these limitations in the claim;
- Lines 18-20 recite the limitation “the third transmission gear”. There is insufficient antecedent basis for this limitation in the claim; and
- Line 22 recites the limitation “said second transmission gear”. It is unclear whether this second transmission gear belongs to the first or second transmission gear train.

Claim 8:

- Line 3 recites the limitation "said second transmission gear". There is insufficient antecedent basis for this limitation in the claim;
- Line 5 recites the limitation "said first transmission gear". There is insufficient antecedent basis for this limitation in the claim;
- Lines 7-12 recite the limitation "said first transmission gear". It is unclear whether this first transmission gear belongs to the first or second transmission gear train;
- Line 16 recites the limitations "the automobile". There is insufficient antecedent basis for this limitation in the claim;
- Line 19 recites the limitation "the third transmission gear". There is insufficient antecedent basis for this limitation in the claim;
- Lines 22-25 recite the limitation "said third transmission gear". It is unclear whether this third transmission gear belongs to the first or second transmission gear train; and
- Lines 26-27 recite the limitation "said second transmission gear". It is unclear whether this second transmission gear belongs to the first or second transmission gear train.

Claim 18:

- Line 21 recites the limitation "the second transmission gear". There is insufficient antecedent basis for this limitation in the claim;
- Line 22 recites the limitation "the system". There is insufficient antecedent basis for this limitation in the claim;
- Line 23 recites the limitation "the first transmission gear". There is insufficient antecedent basis for this limitation in the claim;
- Lines 25-29 recite the limitation "the first transmission gear". It is unclear whether this first transmission gear belongs to the first or second transmission gear train;
- Line 32 recites the limitation "the third transmission gear". There is insufficient antecedent basis for this limitation in the claim;
- Lines 36-37 recite the limitation "the third transmission gear". It is unclear whether this third transmission gear belongs to the first or second transmission gear train; and
- Lines 39-40 recite the limitation "the second transmission gear". It is unclear whether this second transmission gear belongs to the first or second transmission gear train.

Claim 20:

- Lines 16-17 recite the limitation "the second transmission gear". There is insufficient antecedent basis for this limitation in the claim;
- Line 18 recites the limitation "the first transmission gear". There is insufficient antecedent basis for this limitation in the claim;
- Lines 20-24 recite the limitation "the first transmission gear". It is unclear whether this first transmission gear belongs to the first or second transmission gear train;
- Line 27 recites the limitation "the third transmission gear". There is insufficient antecedent basis for this limitation in the claim;
- Lines 31-32 recite the limitation "the third transmission gear". It is unclear whether this third transmission gear belongs to the first or second transmission gear train; and
- Lines 34-35 recite the limitation "the second transmission gear". It is unclear whether this second transmission gear belongs to the first or second transmission gear train.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. **Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by WO 00/26559.**

Note:

To facilitate a better understanding as well as greater accuracy in explaining the following claim rejections, the examiner will refer to the equivalent English version of the WO 00/26559, U. S. Patent 6,712,734 to Loeffler.

Claim 1:

Loeffler (i.e., Figs. 1 and 2; column 1, line 66 – column 6, line 47) discloses a multi-speed transmission comprising:

- An engine, (11);
- A gear-type transmission (10a);
- A first input shaft (12 or 13);
- A second input shaft (12 or 13);
- An output shaft (25);

- A plural numbers of gear trains provided between said first input shaft and said output shaft and between said second input shaft and said output shaft (Fig. 2);
- A motor (40) to apply torque relatively between said first input shaft and second input shaft (i.e., Fig. 2); and
- A control unit (i.e., column 2, lines 47-50) for controlling the torque and rotational speed of said motor and connection/disconnection of said gear trains.

12. Claims 1, 4-8, 18, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by U. S. Patent Application Publication No. US 2003/0069103 A1 to Ibamoto et al.

The applied reference has common inventors and common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Claims 1, 4-8, 18, and 20:

Ibamoto (i.e., Figs. 1 and 8-16; paragraphs [0026] to [0084]) discloses an automatic transmission comprising:

- A first input shaft (i.e., Fig. 12, element 7) connected to an internal combustion engine;

- A first transmission gear train, gears of said first transmission gear train being each disconnectable, installed on said first input shaft (i.e., Fig. 12);
- A second input shaft (i.e., Fig. 12, element 8);
- A second transmission gear train, gears of said second transmission gear train being each disconnectable, installed on said second input shaft (i.e., Fig. 12);
- An output shaft (i.e., Fig. 12 element 21) connected commonly to each driven gear train of said first second transmission gear train (i.e., Fig. 12);
- A motor (i.e., Fig. 12, element 30) to apply torque relatively between said first input shaft and second input shaft;
- A transmission controller (i.e., Fig. 1, element 33) to control the torque and rotational speed of said motor and connection/disconnection of said first and second transmission gear trains (i.e., [0028]);
- Wherein each gear ratio of said second transmission gear train is set to a half-position of the gear ratio of said first transmission gear train (i.e., [0075]);
- Wherein a second transmission gear of said second transmission gear train is connected while the system being driven by said first transmission gear of said first transmission gear train (i.e., [0076] to [0078]);
- Wherein the transmitting torque of a first transmission gear of the first transmission gear train is decreased by increasing said second input shaft torque by the motor; said first transmission gear of said first transmission gear train is disconnected when the transmitting torque of said first transmission gear becomes nearly zero; the rotational speed of said first input shaft is set closer to that of a third transmission gear of said

first transmission gear train, while maintaining the second input shaft torque by said motor; and when the rotational speed of the first input shaft has synchronized with that of the third transmission gear, the third transmission gear of the first transmission gear train is connected, the generated torque of the motor is set to zero and the second gear of the second transmission gear train is disconnected (i.e., [0076] to [0078]).

Double Patenting

13. Applicant is advised that should claim 5 be found allowable, claim 6 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Bowen (U. S. Patent No. 6,427,547) teaches an automated dual-countershaft twin-clutch transmission as shown in Fig. 1.
- Bowen (U. S. Patent No. 6,427,549) teaches an automated twin-clutch transmission as shown in Fig. 1.
- Japanese Patent No. JP02003113932A teaches an automatic transmission as shown in Fig. 3.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to David D. Le whose telephone number is 571-272-7092. The examiner can normally be reached on Mon-Fri (0700-1530).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


ddl


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